

## **REMARKS**

Claims 1–21 are pending in the application. In the Final Office action dated August 30, 2010, claims 1–21 were rejected. Responsive to the rejection, Applicants have amended claims 1, 7, and 9, and canceled claims 5, 7, 10, and 21.

In view of the above amendments and the following remarks, Applicants request reconsideration of the rejected claims.

### ***Request for Continued Examination***

In order to ensure the entry of the above amendments, and consideration of the following remarks, Applicants have submitted a Request for Continued Examination under 37 C.F.R. § 1.114, with the appropriate fee under 37 C.F.R. § 1.17(e).

### ***Rejections under 35 U.S.C. § 112***

Claims 1–20 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

More specifically, the Action asserts that the phrase “coating the glass surface with a solid material film” in claim 1 has no support in the originally filed disclosure. Similarly, the Action asserts that the phrase “stimulating a chemical reaction between the glass and the material film resulting in the formation of reaction products at an interface between the glass and the material film such that an interfacial surface of unreacted glass at the interface is textured” also lacks support in the originally filed disclosure.

Without acknowledging the propriety of the rejection, Applicants have amended claim 1 to eliminate the phrases “coating the glass surface with a solid material film” and “stimulating a chemical reaction between the glass and the material film resulting in the

formation of reaction products at an interface between the glass and the material film such that an interfacial surface of unreacted glass at the interface is textured.”

Claim 1, as amended recites coating the glass surface with an aluminium film, and stimulating a reaction between the glass and the aluminium film. Applicants suggest that claim 1, as amended, is fully supported in the specification as originally filed. In view of the above amendments, Applicants respectfully request the withdrawal of the rejection of claims 1–20 under 35 U.S.C. § 112, first paragraph.

***Rejections under 35 U.S.C. § 102***

Claims 1–2, 4–7, 11 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Marumoto et al. (JP 08–67535).

The Office action asserts that Marumoto et al. discloses the claimed invention. Applicants respectfully disagree, but in the interest of furthering the prosecution of the application claim 1 has been amended to incorporate subject matter originally recited in claim 10. Claim 10 has been canceled.

In order to anticipate a claim, the cited reference must disclose each and every element of the claim, as it is set forth in that claim. Applicants suggest that the Marumoto et al. reference fails to disclose the formation of reaction products at the interface between the glass substrate and the aluminum nickel sprayed onto the glass substrate.

The Action asserts that the Marumoto et al. inherently includes the disclosure of stimulation of a chemical reaction between the glass and the material film, resulting in the formation of reaction products at the resulting interface (see page 13, lines 2–6 of the Action). Applicants suggest that a mere assertion is not sufficient to show the

inherency of a claim element that is not explicitly disclosed, and that the Examiner has the responsibility of providing extrinsic evidence to show that the missing claim element would inevitably and inherently have been present.

In particular, that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. To establish inherency, extrinsic evidence must be provided that makes clear that the missing descriptive matter is necessarily present in the cited reference, and would be so recognized by persons of ordinary skill.

As Marumoto fails to explicitly disclose the formation of reaction products at the interface of the glass substrate and the applied aluminium film, or the removal of the aluminium film and formed reaction products from the glass surface by chemical etching, Applicants suggest that Marumoto fails to anticipate the subject matter of claim 1, as amended.

Applicants therefore respectfully request the withdrawal of the rejection of claims 1–2, 4–7, 11 and 19 under 35 U.S.C. § 102.

Claims 1, 12–18, and 20–21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Shi et al. (WO 00/28602).

The Shi et al. reference discloses the formation of deposits and/or crystals of applied barium sulfate on the surface of a glass substrate, so that the resulting deposits and/or crystals act as a mask during subsequent etching processes. Applicants suggest that in view of the amendments to claim 1, Shi et al. fail to anticipate the subject matter of claim 1, for at least the reason that Shi et al. fail to disclose coating a glass surface with an aluminium film.

Therefore, in view of the above amendments, Applicants respectfully request the withdrawal of the rejection of claims 1, 12–18, and 20–21 are rejected under 35 U.S.C. § 102(b).

***Rejections under 35 U.S.C. § 103***

Claims 3 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Marumoto et al. (JP 08–67535) as applied to claims 1–2, 4–7, 11 and 19 above, in view of Oboodi et al. (U.S. Patent no. 4,794,048).

Claims 9–10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Marumoto et al. (JP 08–67535) as applied to claims 1–2, 4–7, 11 and 19 above, in view of Yamada et al. (U.S. Patent No. 3,876,6479).

Claims 12–18 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Marumoto et al. (JP 08–67535) as applied to claims 1–2, 4–7, 11 and 19 above, in view of Shi et al. (WO 00/28602).

The Office action asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Marumoto et al. by thermally annealing the glass and the material film of metal with a sequence of annealing steps at different temperatures as taught by Oboodi et al., because Oboodi et al. teaches that the thermal annealing process can be carried out in a single step or in multiple steps, wherein the multiple steps are preferred so that the binding and solvent in the suspension can be removed. Applicants respectfully disagree.

As discussed above, the Marumoto reference fails to disclose each element of claim 1, as amended. Applicants respectfully suggest that even in combination with

Oboodi et al., this deficiency is not corrected. As a result, the cited references fail to disclose every element of the claim.

Furthermore, the Marumoto reference is directed to a method of roughening the surface of a substrate. Specifically, Marumoto discloses the application of a surface coat 2 to a glass substrate 1, followed by the removal of coating 2 by “pulling down” or via the “tension method”, i.e. removal techniques that include mechanically overcoming the adhesion power of the coating 2, resulting in the texturing of the surface of the substrate by “breaking off” pieces of the substrate via the shearing stress of the mechanical removal of coating 2.

Marumoto is explicit in the disclosure of this method of removing coating 2, for example at paragraphs [0010], [0016], and paragraph [0015] (with reference to the English translation). At paragraph [0015] Marumoto specifically states that “On the other hand, if the adhesion power of the coat tool is larger than 10.0MPa, it will become difficult to remove the coat tool from the glass substrate 1.” Furthermore, as the surface roughness of the glass substrate is increased by the removal of portions of the substrate that remains affixed to applied coating 2 when it is physically removed, the principle of operation of the Marumoto invention resides in the application of a coating to the substrate followed by the physical, mechanical removal of that coating.

In contrast, the method of claim 1 (as amended) recites the removal of the aluminium film coating and associated reaction products via chemical etching. As set out at MPEP § 2143.01, if the modification or combination of the prior art proposed in the Office action would change the principle of operation of a prior art invention being modified, then the references necessarily fail to provide sufficient suggestion or

motivation to render the claims *prima facie* obvious. As the operating principle disclosed in Marumoto relies upon the physical removal of coating 2, such that the removal “removed some glass substrates 1 stuck to the coat 2 with this coat 2” (see paragraph [0010]), Applicants respectfully suggest that Marumoto cannot properly be relied upon to establish the obviousness of claim 1 under 35 U.S.C. § 103.

With respect to combinations of Marumoto et al. with Yamada et al. and/or Shi et al., Applicants suggest that as it is improper to combine or modify the teachings of Marumoto et al. so as to arrive at the method of claim 1, there can be no suggestion or motivation to modify Marumoto et al. as suggested by the Office action, or combine the teachings of Muramoto et al. with either Yamada et al. or Shi et al.

Applicants suggest that the cited references have failed to establish the *prima facie* obviousness of claim 1. As claims 3, 8, 9, 12–18, and 20 depend directly or indirectly from claim 1, Applicants respectfully suggest that claims 3, 8, 9, 12–18, and 20 are similarly not rendered obvious by the cited references for at least the same reasons as provided for claim 1.

Applicants therefore respectfully request the withdrawal of the rejections of claims 3, 8, 9, 12–18, and 20 under 35 U.S.C. § 103.

### **Summary**

In view of the above amendments and arguments, Applicants respectfully suggest that the application is now in condition for allowance. If the Examiner has any questions regarding this paper or the application as a whole, he should contact the undersigned agent so that allowance of the application can be facilitated.

**CERTIFICATE OF ELECTRONIC FILING**

I hereby certify that this correspondence is being transmitted electronically to the U.S. Patent and Trademark Office via its EFS-Web System on November 30, 2010.

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